

ABSTRACT

Embodiments of the present invention are related to electro-kinetic air transporter-conditioner systems and methods. An electro-kinetic air conditioner device includes an inner hollow cylindrical mesh electrode having a first radius and an outer hollow cylindrical mesh electrode having a second radius that is larger than the first radius. The second hollow cylindrical mesh electrode surrounds the first hollow cylindrical mesh electrode. At least one emitter electrode is located within and generally parallel to the first hollow cylindrical electrode. A voltage source provides a high voltage potential difference between each emitter electrode and the inner hollow cylindrical mesh electrode. The outer hollow mesh electrode is preferably grounded, as well as insulated.